

Amendments to the Claims:

Please cancel claims 43-61 and 63-77 and amend claims 62 and 79 as noted below.
This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

43-61. (Canceled)

62. (Currently amended) ~~The apparatus of Claim 17~~ A filtering and measuring apparatus, said apparatus comprising:

_____ a filter housing with at least one inlet and one outlet;
_____ a removable housing cover adapted for replacement of the filter element;
_____ an oil filter element disposed in the filter housing, said element selected from the group of microfilters, ultra filters and nanofilters;
_____ at least one measurement space in the filter housing; and
_____ at least one sensor in a measuring device for the measurement of at least one characteristic of an oil located in the measurement space, wherein the measuring device is disposed in an insertion opening in the removable housing cover and wherein the insertion opening is adapted to be closed by a removable closing element and said removable closing element includes a first retaining section adapted for coupling to a second retaining section on the measuring device in order to position the at least one sensor stationary in the measurement space.

63-77. (Canceled).

78. (Previously presented) The method of measuring a characteristic of oil comprising:

providing a filtering apparatus having a filter housing with at least one filter element inserted therein, said filter element selected from the group of microfilter, ultrafilter or nanofilter elements;

temporarily inserting a hand held measuring device having at least one sensor into a measurement space located in the filter housing;

measuring a dielectric constant of the oil using a capacitor;

evaluating the measured dielectric constant using measuring electronics that are connected to the at least one sensor.

79. (Currently Amended) The method according to Claim ~~36~~ 78 wherein the step of inserting the measuring device further includes guiding the at least one sensor into the measurement space through an insertion opening in the housing.